

• CHAPTER 3 •

SELECTION



Species selection is ***the most*** critical step in the successful establishment and future performance of any stand of turfgrass. Variety selection is also important, but differences among varieties are not as distinct as differences among species. Use this chapter to learn about species characteristics and then check tables for recommended varieties.



• KENTUCKY BLUEGRASS •

Of note...

1. Rhizomes are a distinctive and useful characteristic that allow Kentucky bluegrass to spread laterally. This trait is particularly beneficial in areas of high traffic such as athletic fields.
2. Under high nitrogen fertility and cool, moist soil conditions, aggressive rhizome growth can contribute to excessive thatch development.
3. Surface and root feeding insects such as white grubs and billbugs are also common problems.



Kentucky bluegrass (*Poa pratensis*) is the most widely used turfgrass species for northern climates. It is a well-adapted perennial that spreads by underground lateral stems called rhizomes. This enhances its ability to form a sod and recover from damage. With appropriate selection of varieties

and proper management, Kentucky bluegrass can be used successfully in home lawns, athletic fields, parks, golf course tees, fairways and roughs, as well as low maintenance sites. There are many good varieties available. The key is to make selections based on how the area will be used and cared for.

Kentucky Bluegrass Characteristics



RHIZOMES: *Underground lateral stems allow Kentucky bluegrass to form a sod and recover quickly from damage.*



Kentucky Bluegrass Characteristics



SPECIES DIVERSITY: Differences among varieties of Kentucky bluegrass can be so distinct that they are often grouped into categories based on growth and performance characteristics. More information on page 21.



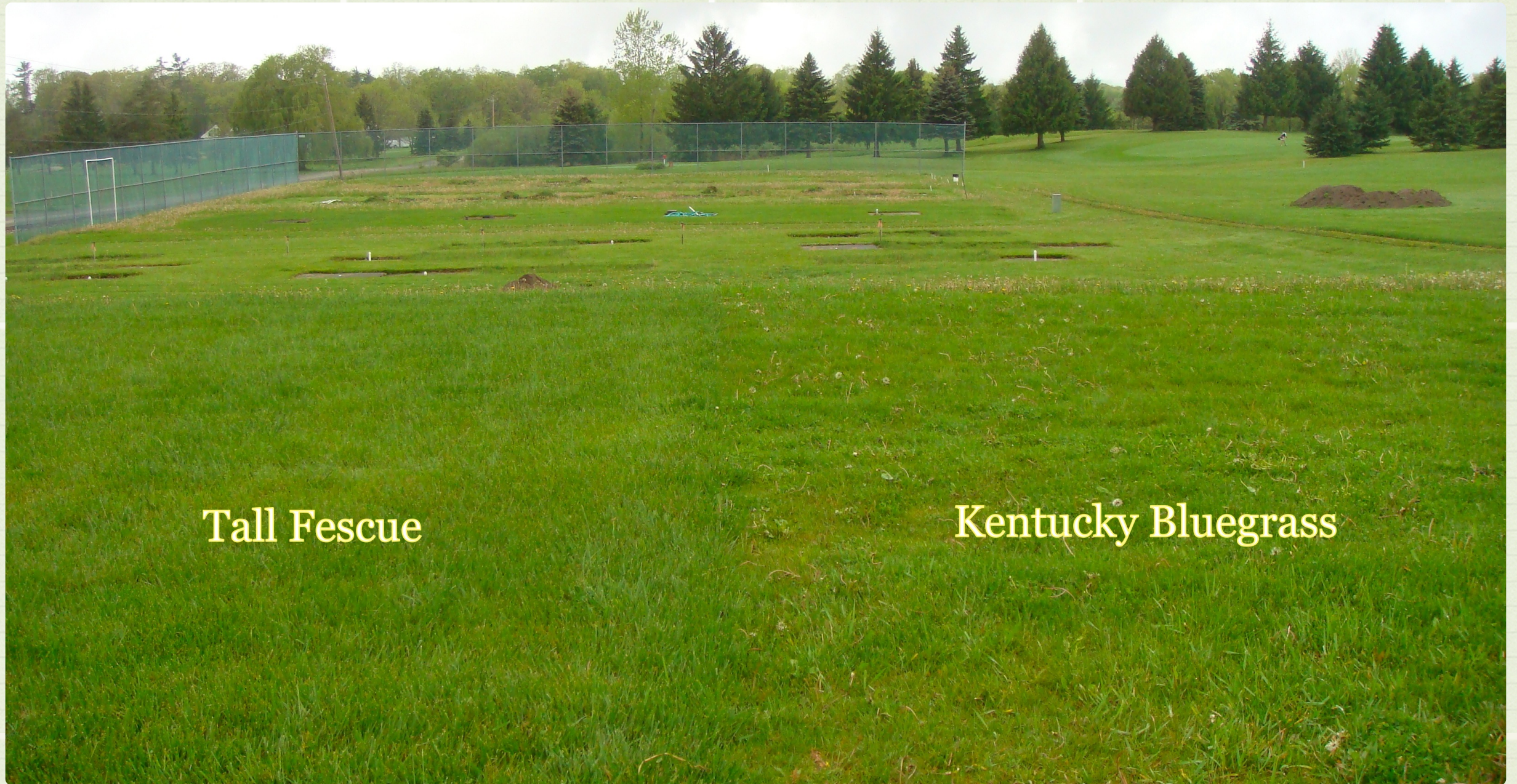
Kentucky Bluegrass Characteristics



SLOW FROM SEED: It can take two months for Kentucky bluegrass to form a uniform cover. Consider sod when establishment time is limited. Big roll sod shown here is often used for large areas, while sod delivered on pallets may be desirable for smaller sites. Adequate rainfall or irrigation is required for successful installation.



Kentucky Bluegrass Common Concerns



Tall Fescue

Kentucky Bluegrass

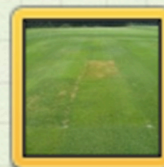
NITROGEN: Improved elite Kentucky bluegrass has a higher nitrogen requirement than the fescues. Failure to provide adequate fertility can result in rapid stand deterioration.



Kentucky Bluegrass Common Concerns



DISEASES: Use of resistant varieties helps reduce incidence of fungal diseases on Kentucky bluegrass such as summer patch, leafspot and dollarspot.



Variety Selection: There is great diversity within the bluegrass species, and dozens of varieties of Kentucky bluegrass are commercially available. Differences among varieties can be so distinct that they are often grouped into categories based on growth and performance characteristics (Bonos, et al, 2000). Improved elite types (including compact and high density) are most successful in full-sun, well-drained fertile sites that receive regular mowing, fertilization and irrigation. However, there are also varieties that perform well under low maintenance. Here are descriptions for some of the most commonly used Kentucky bluegrass types.

Compact (includes Midnight and America Types): Have low, compact growth that tolerate close mowing under irrigated conditions. Properly managed, these varieties provide a high level of performance and appearance. To maintain top performance, they require regular mowing, irrigation to prevent stress and good fertility (minimum 3 lb N/1000 sq ft/yr). Compact types have good resistance to leaf spot disease. They are slow to green up in the spring, something to consider for spring sports. **Compact varieties include: America, Award, Bedazzled, Diva, Everglade, BlueNote, Impact, Midnight, Ginney, NuDestiny, Rhapsody, Total Eclipse and Unique.**

High Density (formerly aggressive) Types: Have aggressive lateral growth resulting in high density turf. They recover quickly from traffic and are often used for sports turf. In addition to regular mowing, irrigation and fertilization, routine core aerification is generally required as these types produce more thatch than others. High density types tend to dominate other species or varieties in a blend or mix. **High density varieties include: Emblem, , Jefferson, P-105, Touchdown and Washington.**

Mid-Atlantic Types: Produce vigorous turf of medium to high density. They have early spring green up and may be included in blends with types that have long winter dormancy. With a deep, extensive root and rhizome system, these varieties have excellent summer stress tolerance. Researchers at Kansas State University concluded that varieties in the compact-America and Mid-Atlantic groups are likely to have the greatest potential for maintaining acceptable visual quality with less water (Bremer, et al, 2012). **Mid-Atlantic varieties include: Appalachian, Cabernet, Livingstone, Preakness, Touche and Zinfandel.**

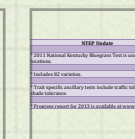
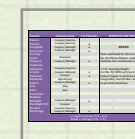
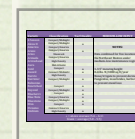
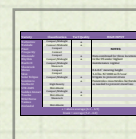
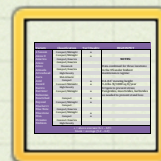
BVMG (Baron, Victa, Merit, Gnome) Types: Produce moderate to good quality turf with medium density and medium wide leaves. This type is noted for high seed production which often means lower cost per pound of seed. However, the high seed yield results in very stemmy turf in the spring from seed stalk formation. These types are also susceptible to stripe smut. **BVMG varieties include: Abbey, Baron, Bartitia, Gnome, Goldrush, Merit, Raven and Victa.**

Common (Midwest Ecotype): Have erect growth habit and narrow leaf blades. High susceptibility to leaf spot. Good for low maintenance utility turf, soil stabilization/conservation. Common types are not the same as “variety not stated” on a seed label. **Common varieties include: Alene, Ginger, Kenblue, Newport, Park and Piedmont.**

Kentucky Bluegrass Varieties (in alphabetical order)

Variety	Classification	Turf Quality	HIGH INPUT
4 Season	Compact/Midnight	+	
Alexa II	Compact/Midnight	+	
America	Compact/America		NOTES:
Argos	Compact/America		
Aries	Shamrock		Data combined for three locations
Armada	Compact/America		in the US under highest
Arrowhead	High Density		maintenance regime:
Aura	Mid-Atlantic		
Avid	Compact	+	0.4-0.6" mowing height
Award	Compact/Midnight	+	3-4 lbs. N/1000 sq ft/year
Bariris	High Density		Irrigate to prevent stress
Barrister	Compact/Midnight	+	Fungicides, insecticides, herbicides
Belissimo			as needed to prevent stand loss
Bewitched	Compact	+	
Beyond	Compact/Midnight	+	
Blueberry	Compact		
Blue Note	Compact/America		
Bluestone	Compact/Midnight	+	
Diva	Compact	+	
Dynamo	Compact/America		
Emblem	High Density		
+ = above average (6.1 – 6.9) blank = average (5.2 – 6.0)			

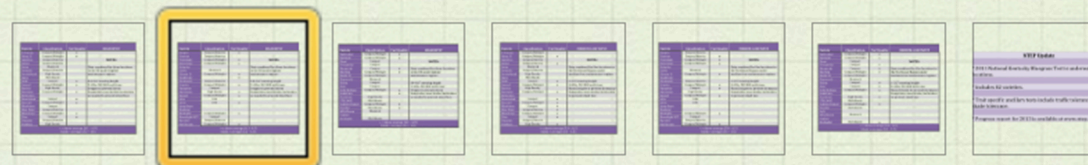
Table 5a: Compiled from NTEP 2005 Kentucky Bluegrass Final Report (data from 2006 - 2010).



Kentucky Bluegrass Varieties (in alphabetical order)

Variety	Classification	Turf Quality	HIGH INPUT
Empire	Compact/America	+	
Everest	Compact/America		
Everglade	Compact/Midnight	+	NOTES:
Excursion	Compact/Midnight	+	
Futurity			
Gaelic	Shamrock		Data combined for three locations in the US under highest maintenance regime:
Ginney II	Compact/Midnight	+	
Gladstone		+	
Glenmont	Compact/America		0.4-0.6" mowing height
Granite	Compact/Midnight	+	3-4 lbs. N/1000 sq ft/year
Hampton	Compact		Irrigate to prevent stress
Harmonie	High Density	+	Fungicides, insecticides, herbicides
Impact	Compact/Midnight	+	as needed to prevent stand loss
Julia	Julia		
Juliet	Julia	+	
Jump Start			
Madison			
Midnight	Compact/Midnight	+	
Moonlight SLT	Compact		
Mystere	Compact/America		
NuChicago	Compact/Midnight	+	
+ = above average (6.1 – 6.9) blank = average (5.2 – 6.0)			

Table 5b: Compiled from NTEP 2005 Kentucky Bluegrass Final Report (data from 2006 - 2010).



Kentucky Bluegrass Varieties (in alphabetical order)

Variety	Classification	Turf Quality	HIGH INPUT
NuDestiny	Compact/Midnight	+	
NuGlade	Compact/Midnight	+	
Pinot	Compact		NOTES:
Prosperity	Compact		
Rhapsody	Compact	+	Data combined for three locations
Rhythm	Compact/Midnight	+	in the US under highest
Rugby II	Compact/Midnight		maintenance regime:
Shamrock	Shamrock		
Shiraz	Compact		0.4-0.6" mowing height
Skye	Compact		3-4 lbs. N/1000 sq ft/year
Solar Eclipse	Compact/Midnight	+	Irrigate to prevent stress
Sombrero		+	Fungicides, insecticides, herbicides
Starburst	High Density		as needed to prevent stand loss
STR 2485	Mid-Atlantic		
Sudden Impact	Compact/Midnight	+	
Touche	Mid-Atlantic	+	
Wild Horse	Shamrock		
Yankee			
Zinfandel	Mid-Atlantic		
+ = above average (6.1 – 6.9) blank = average (5.2 – 6.0)			

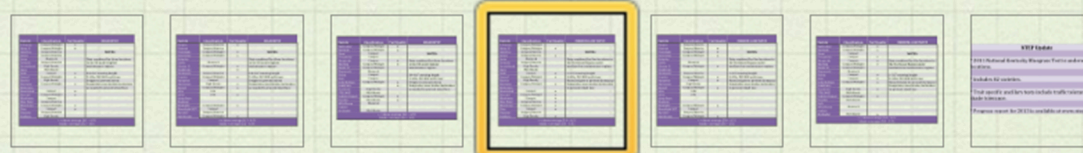
Table 5c: Compiled from NTEP 2005 Kentucky Bluegrass Final Report (data from 2006 - 2010).



Kentucky Bluegrass Varieties (in alphabetical order)

Variety	Classification	Turf Quality	MEDIUM-LOW INPUT
4 Season	Compact/Midnight		
Alexa II	Compact/Midnight	+	
America	Compact/America		NOTES:
Argos	Compact/America	+	
Aries	Shamrock		Data combined for five locations in the Northeast Region under medium-low maintenance regime:
Armada	Compact/America		
Arrowhead	High Density		
Aura	Mid-Atlantic		
Avid	Compact	+	1-3.5" mowing height
Award	Compact/Midnight	+	0-4 lbs. N/1000 sq ft/year
Bariris	High Density		None/irrigate to prevent dormancy
Barrister	Compact/Midnight	+	Fungicides, insecticides, herbicides to prevent stand loss
Belissimo			
Bewitched	Compact	+	
Beyond	Compact/Midnight	+	
Blueberry	Compact	+	
Blue Note	Compact/America	+	
Bluestone	Compact/Midnight	+	
Diva	Compact	+	
Dynamo	Compact/America		
Emblem	High Density	+	
+ = above average (5.6 – 6.1) blank = average (5.0 – 5.5)			

Table 6a: Compiled from NTEP 2005 Kentucky Bluegrass Final Report (data from 2006 - 2010).



Kentucky Bluegrass Varieties (in alphabetical order)

Variety	Classification	Turf Quality	MEDIUM-LOW INPUT
Empire	Compact/America		
Everest	Compact/America	+	
Everglade	Compact/Midnight	+	NOTES:
Excursion	Compact/Midnight	+	
Futurity			Data combined for five locations in the Northeast Region under medium-low maintenance regime:
Gaelic	Shamrock		
Ginney II	Compact/Midnight	+	
Gladstone			
Glenmont	Compact/America		1-3.5" mowing height
Granite	Compact/Midnight	+	0-4 lbs. N/1000 sq ft/year
Hampton	Compact	+	None/irrigate to prevent dormancy
Harmonie	High Density		Fungicides, insecticides, herbicides
Impact	Compact/Midnight	+	to prevent stand loss
Julia	Julia		
Juliet	Julia		
Jump Start			
Madison			
Midnight	Compact/Midnight	+	
Moonlight SLT	Compact		
Mystere	Compact/America		
NuChicago	Compact/Midnight	+	
+ = above average (5.6 – 6.1) blank = average (5.0 – 5.5)			

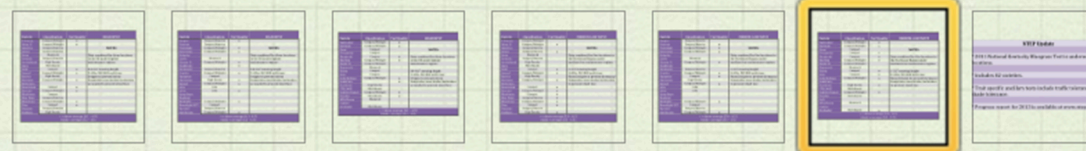
Table 6b: Compiled from NTEP 2005 Kentucky Bluegrass Final Report (data from 2006 - 2010).



Kentucky Bluegrass Varieties (in alphabetical order)

Variety	Classification	Turf Quality	MEDIUM-LOW INPUT
NuDestiny	Compact/Midnight	+	
NuGlade	Compact/Midnight	+	
Pinot	Compact		NOTES:
Prosperity	Compact	+	
Rhapsody	Compact	+	Data combined for five locations in the Northeast Region under medium-low maintenance regime:
Rhythm	Compact/Midnight	+	
Rugby II	Compact/Midnight		
Shamrock	Shamrock		
Shiraz	Compact	+	1-3.5" mowing height
Skye	Compact	+	0-4 lbs. N/1000 sq ft/year
Solar Eclipse	Compact/Midnight	+	None/irrigate to prevent dormancy
Sombrero			Fungicides, insecticides, herbicides to prevent stand loss
Starburst	High Density	+	
STR 2485	Mid-Atlantic		
Sudden Impact	Compact/Midnight	+	
Touche	Mid-Atlantic		
Volt			
Wild Horse	Shamrock		
Yankee			
Zinfandel	Mid-Atlantic	+	
+ = above average (5.6 – 6.1) blank = average (5.0 – 5.5)			

Table 6c: Compiled from NTEP 2005 Kentucky Bluegrass Final Report (data from 2006 - 2010).



Kentucky Bluegrass Varieties (in alphabetical order)

NTEP Update

* 2011 National Kentucky Bluegrass Test is underway at 19 locations.

* Includes 82 varieties.

* Trait specific ancillary tests include traffic tolerance and shade tolerance.

* Progress report for 2013 is available at www.ntep.org

